BIOL 4014 Vertebrae Embryology
Spring 2021

Instructor: Charcacia T. Sanders
Section # and CRN: Section#: P0 and CRN: 29103
Office Location: Physical Location: Elmer E. O’Banion Science Building, Rm 430R
Virtual Location: https://pvpanther.zoom.us/j/9680371418
Office Phone: 936-261-3162
Email Address: ctsanders@pvamu.edu
Office Hours: Monday 4:00 pm – 5:00 pm
Tuesday 8:00 am – 10:00 am
Wednesday 3:00 pm – 5:00 pm
Thursday: 8:00 am – 10:00 am

Mode of Instruction: [Hybrid/Blended]

Course Location: Room 315 New Science Building

Class Days & Times:
- Lecture: TR 2:55 pm – 3:20 pm
- Lab: TR 4:30 pm – 6:20 pm

Catalog Description: Embryology examines living organisms in a very different manner to other areas of biology; rather than examine adult structures; embryology seeks to explain how these structures come about. The organization of an entire organism from a single, undifferentiated cell is a remarkable and complex feat. This course provides an overview of important developmental issues, questions, and approaches to study. As an upper-level course, this course also seeks to test and reinforce critical thinking, experimental design, and scientific writing skills through student-planned experiments and accompanying lab reports. The success of many of the laboratory exercises requires thoughtful, responsible design and follow-up, including monitoring of projects outside of class time.

Prerequisites: Undergraduate level BIOL 1015 Minimum Grade of C and Undergraduate level BIOL 1025 Minimum Grade of C
Co-requisites: None

Required Texts: In this course, you will use several resources such as peer-reviewed journal articles, online texts, videos, links to pertinent information, and other sources the instructor deem necessary. It is your responsibility to use posted resources to be successful in this course.

Recommended Texts:

Student Learning Outcomes:
During this course, we will study the similarities between cancer and normal development to understand how tumors co-opt normal developmental processes to facilitate cancer initiation, maintenance and progression. We will examine critical signaling pathways that govern these processes and, importantly, how some of these pathways hold promise as therapeutic targets for cancer treatment. We will discuss how future treatments might be personalized to target cancer cells in specific patients. We will also consider examples of newly-approved drugs that have dramatically helped patients combat this devastating disease.

<table>
<thead>
<tr>
<th>Upon successful completion of this course, students will be able to:</th>
<th>Program Learning Outcome #</th>
<th>Core Curriculum Outcome Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>[NOTE: Begin each outcome with a verb]:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. List and define the hallmark characteristics of cancer</td>
<td>1, 2, 3, and 4</td>
<td>Integration of Broad Knowledge</td>
</tr>
</tbody>
</table>
2 Name and discuss important developmental signaling pathways and their connections to cancer 1, 2, 3, and 4 Critical Thinking
3 Read, comprehend, critically analyze, and integrate knowledge from primary research articles 1, 2, 3, and 4 Critical Thinking, Problem Solving
4 Explain molecular and cellular techniques commonly used in embryology, and formulate how to apply them to answer new questions 1, 2, 3, and 4 Critical Thinking, Problem Solving
5 Critically evaluate connections between embryological processes and their relationship to cancer 1, 2, 3, and 4 Critical Thinking, Problem Solving
6 Design experiments to test whether a pathway is important in embryology and cancer 1, 2, 3, and 4 Critical Thinking, Problem Solving

This syllabus is subject to change at the discretion of the instructor. Students will be notified of such changes ahead of time via eCourse.

Major Course Requirements

Method of Determining Final Course Grade

<table>
<thead>
<tr>
<th>Course Grade Requirement</th>
<th>Value</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>14 Quizzes (15 points each)</td>
<td>210</td>
</tr>
<tr>
<td>Scientific Journal Article Analysis</td>
<td>10 Journal Articles (15 points each)</td>
<td>150</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>1 Exam (50 points each)</td>
<td>40</td>
</tr>
<tr>
<td>Research Project Oral Presentation</td>
<td>1 Presentation (100 points each)</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>500</strong></td>
</tr>
</tbody>
</table>

Grading Criteria and Conversion:

A = 90% to 100%
B = 80% to 89%
C = 70% to 79%
D = 60% to 69%
F = 0% to 59%

Detailed Description of Major Assignments:

<table>
<thead>
<tr>
<th>Assignment Title or Grade Requirement</th>
<th>Description</th>
<th>Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>Student’s knowledge of scientific practices and concepts gained during class will be assessed using a combination of multiple choice and open-ended questions. Student’s written scientific reasoning skills will be evaluated using a rubric that measures aspects of critical thinking and scientific inquiry</td>
<td>All quizzes will be administered on Tuesdays from 5:00pm – 5:30 pm.</td>
</tr>
<tr>
<td>Scientific Journal Article Analysis</td>
<td></td>
<td>Due on Wednesdays at 11:59 pm</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>Students will be evaluated to measure mastery of course concepts and skills</td>
<td>March 11, 2021 from 5:00 pm – 6:00 pm</td>
</tr>
<tr>
<td>Research Project Oral Presentation</td>
<td>Students will present a detailed report of research findings and discuss outcomes from a scientific journal article.</td>
<td>May 3, 2021 at 1:15 pm</td>
</tr>
</tbody>
</table>

Course Procedures or Additional Instructor Policies

Taskstream is a tool that Prairie View A&M University uses for assessment purposes. One of your assignments is REQUIRED to be submitted as an “artifact,” an item of coursework that serves as evidence that course objectives are met. More information will be provided during the semester, but for general information, you can visit Taskstream via the link in eCourses.
I. **DIVERSITY STATEMENT**: The Department of Biology values the perspectives of individuals from all backgrounds reflecting the diversity of our students. We broadly define diversity to include race, gender identity, national origin, ethnicity, religion, social class, age, sexual orientation, political background, and physical and learning ability. We strive to make this classroom and this department an inclusive space for all students.

II. **COMMUNICATION TO LEARNING**: You must be able to balance your time dedicated to this class along with your other responsibilities. Science courses often demand a much larger amount of your time than other courses. You must create a schedule where you have reserved a reasonable amount of time daily to focus on studying and completing online assignments for this course. My purpose in this class is to act as your guide through this subject material. I must make sure that your grade in this class indicates your mastery of the subject material required by this college. This class is 5 credit hours and you will need to commit to time it will take to be successful in the course. A 4-credit hour course corresponds to a minimum of 12 hours of student engagement per week for a 16-week semester course. This time may be spent on discussions, readings and lectures, study and research, and assignments. Procrastination and cramming will lead to negative consequences. At worst, this will lead to failing the class. At best, you pass but fail to truly learn the material.

**ZOOM**: It is mandatory that you attend all scheduled ZOOM sessions during the scheduled class times. If you are unable to attend the live class session, you are required to watch the video of the recorded session.

III. **MINIMUM TECHNOLOGY REQUIREMENTS**: Students are required to maintain the following:

A. A computer (desktop/laptop) or mobile device (tablet) that is less than 5 years old and can access Adobe Flash applications.

B. Speakers/headphones/earbuds for listening to audio or videos presented in courses.

C. Webcam for interacting in course activities that require video feedback from students (such as VoiceThread), video test proctoring (such as Respondus Monitor, Examity), or other third-party tools

D. An Internet Browser, such as Mozilla Firefox and Google Chrome preferred.

E. Adobe Acrobat Reader (latest version) - Download.

F. A stable high speed Internet connection

IV. **CLASS FORMAT**: The class instructor facilitates an asynchronous, synchronous, and hybrid course. This class requires student participation and demonstrations. The instructor will ask students questions, present problems to solve and use audiovisuals to demonstrate concepts. Students should be prepared to actively participate in class to demonstrate their knowledge of biological concepts.

A. Face-to-Face Meeting Times: Tuesday and Thursday 2:55 pm to 4:30 pm

B. Virtual Meeting Times: Tuesday: 5:30 pm – 6:20 pm (Quiz Review)

V. **MATERIALS**: Students are required to maintain a folder with all class notes, handouts, and reports. You will also need access to a reliable internet connection and a computer.

Students are required to maintain a lab notebook with all complete record of procedures (the actions you take), the reagents you use, the observations you make (these are the data), and the relevant thought processes that would enable another scientist to reproduce your observations.

VI. **USING PROCTORIO FOR ONLINE ASSESSMENTS**: Unless otherwise stated, all lecture and lab exams, lab quizzes, and extra credit writing assignments will be given using Proctorio. Proctorio can only be used on a computer and in the Chrome Browser and you will NOT be able to complete any Proctorio assignment on your smartphone or tablet. You will need a computer whether laptop or desktop for these assignments. Download the [Proctorio Chrome Extension](#) to your computer.

VII. **SUBMITTING ASSIGNMENTS**: All assignments must be submitted online via Canvas or Mastering Biology. The instructor will not accept any assignments via email unless prior arrangements are made.

VIII. **MAKE-UP ASSESSMENTS**: You are required to complete assessments as scheduled with the rest of your class. No make-up will be given automatically. If you cannot complete an assessment during the scheduled time you must contact the
instructor immediately to discuss your options (e-mail within 24 hours of missing the assessments and the make-up must be taken within 72 hours after the assessments has been administered). Make-ups are will be given in a free-response format during a designated day and time at the discretion of the instructor.

Do not assume that you are eligible to take a make-up. It is up to the instructor decide if a student is eligible for a make-up pending the submission of the appropriate documentation. Appropriate documentation must be supplied before any make-up will be scored (please discuss with instructor what is considered an appropriate documentation).

If students do not appear at the prearranged time or meet the prescribed deadline for makeup work, they forfeit their rights for further makeup of that work and will receive a grade of a zero.

IX. LATE WORK: Late work is not accepted. Any assignment not submitted by the due date will receive a 0 grade, unless prior arrangements are approved by the instructor.

X. CLASS ATTENDANCE: Success in this course is dependent on your active participation and engagement throughout the course. As such, students are required to complete all assignments by the due date, and to actively participate in class discussions.

Students are expected to:

XI. Log on at least four times a week – on different days in order to complete weekly assignments, assessments, discussions and/or other weekly deliverables as directed by the instructor and outlined in the syllabus

XII. Participate in the weekly activities, this means that, in addition to attending the schedule meetings, students are expected to actively participate in live class discussions and class activities.

Your attendance will be taken in the form of your participation during live Zoom sessions and face-to-face meetings. Attendance in this class is not only important to your success in this class, but also to the success of the entire class. This course is designed to be inter-active and student-centered. In case of absence, it is the student’s responsibility to contact the instructor.

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Excused absences will only be considered under extenuating circumstances and at the instructor’s discretion. Extenuating circumstances include sickness requiring hospitalization (not doctor’s appointments), death of an immediate family member (parent, sibling, spouse, children), military obligations, and religious holidays (which requires a written notice to be provided to the instructor no later than the second-class meeting of the semester). Official documentation must be provided in the case of an excused absence (i.e., medical paperwork, funeral acknowledgement in newspaper).

XIII. CLASS CONDUCT: It is the goal of the instructor to maintain the integrity of the course and an environment conducive to learning. Students are expected to follow Prairie View A&M University Code of Student Conduct and adhere the course procedure and policies.

A. Academic Dishonesty: No cheating on exams, quizzes, reports, or any graded activity. Cheating will result in a grade of a zero.

B. Online Etiquette: It is important to recognize that the online classroom is in fact a classroom, and certain behaviors are expected when you communicate with both your peers and your instructors. These guidelines for online behavior and interaction are known as netiquette. Please review the “NETIQUETTE GUIDE FOR ONLINE COURSES” posted on eCourses to familiarize yourself with the proper netiquette for this course.

XIV. ASSIGNMENT FOLLOW-UP: All assignments that are automatically graded will be available for review after the assignment due date. Assignments with open-ended responses will receive a grade and instructor feedback within a week after the due date.

To review assignments that are not available to view online, you must set up an appointment during the instructor’s office hours. Students will have 7 days after the assignment grade has posted to discuss their performance on the assignment with the instructor. After the 7-day follow-up period, students will forfeit the opportunity to discuss the assignment with the instructor.

XV. COMMUNICATION: My primary means of communication with you will be through the email address listed in this syllabus and the email messaging via eCourses. Do not expect instantaneous replies and responses. You can expect a
response to communications within 48 hours.

I expect you to check your PVAMU student email account daily and to use this system as your primary mode of communication with me. Failure to keep up with email communications from me will solely be your responsibility as the student. DO NOT email me from your private email account. In the subject line of the email please write the course code and term in the following format: BIOL 4014 Spring 2021. Any email that does not have the proper subject line will possibly be overlooked and receive a delayed response.

If a student’s parent or guardian requests a meeting with the instructor, the student must be present.

Taking Exams: Exams in this course are administered through PVAMU eCourses with Proctorio

Requirements to take exams include:
- A reliable computer, desktop or laptop (phones, tablets, and iPads are not allowed).
- Windows: 10, 8, 7 • Mac: OS X 10.10 or higher
- Adobe Flash Player (bundled with the LockDown Browser installation) • Web camera (internal or external) & microphone
- A room to take the exam where you are alone (other individuals in the room are not allowed)

To learn more about Proctorio and how to setup, read the information in this link.

I. Exam Guidelines: When taking an online quiz, follow these guidelines:

- Have your ID available
- Ensure you’re in a location where you won’t be interrupted
- Turn off all other devices (e.g. tablets, phones, second computers) and place them outside of your reach
- Before starting the test, know how much time is available for it, and also that you’ve allotted sufficient time to complete it
- Clear your desk or workspace of all external materials not permitted - books, papers, other devices
- Remain at your computer for the duration of the test

To produce a good webcam video, do the following:
- Avoid wearing baseball caps or hats with brims or an
- Ensure your computer or device is on a firm surface (a desk or table). Do NOT have the computer on your lap, a bed, or other surface where the device (or you) are likely to move
- If using a built-in webcam, avoid readjusting the tilt of the screen after the webcam setup is complete
- Take the exam in a well-lit room but avoid backlighting (such as sitting with your back to a window)
- Remember that LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted

II. Exam Assistance:

1. The fastest way to get support is though the live chat. Just click the extension icon once you are in the exam
2. Proctorio have Frequently Asked Questions from https://proctorio.com/support.

3. If you're still unable to resolve a technical issue with Proctorio, email support@proctorio.com and provide detailed information about your problem and what steps you took to resolve it.

4. If your computer freezes during a quiz or exam and the timer shows time available, stop taking the quiz/exam. Close the window and contact your instructor right away.

III. **Academic Violations during Proctorio Exams:** You will receive a zero on your exam for violating any of the following rules:

   A. Your webcam check must show that you are working alone in an isolated room.

   B. Your webcam check must show that all accessible academic resources are stored away during the exam such as textbook, written or digital notes, anything attached to your monitor/computer that can be considered notes (i.e. post-its) must be put away and out of sight while taking the exam.

   C. During your webcam check with an internal webcam, you will need to use a hand-held mirror to show that the computer and monitor are free of any attachments using the mirror reflection of the work area.

   D. No one should be in the room with you at any time during the exam. Lock the door and inform everyone not to enter the room during the exam.

   E. Do not get up and leave your computer at any point during the exam.

   F. No restroom breaks or breaks of any kind are allowed

   G. You must take the exam on a table or desk. Do not take exams in your bed, on the floor, etc.

   H. Your entire face, head, and torso must be visible during the exam.

   I. Do not deviate your head and/or eyes away from the monitor.

   J. Do not play any background noise such as TV or radio during the exam.

   K. Do not use headphones/earbuds during the exam.

   L. Do not wear caps, bonnets, beanies, hoodies, or any other head covering.

   M. The room must be well illuminated during the exam. Do not take the exam in the dark.

   N. Do not take the exam in a public location. You must be in an isolated room.

   O. No eating or drinking during the exam.

   P. No pets/animals in the room during the exam.

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**Student Support and Success**

**John B. Coleman Library**

The library and its partners have as their mission to provide resources and instructional material in support of the evolving curriculum, as a partner in Prairie View A&M University's mission of teaching, research, and service and to support the University's core values of access and quality, diversity, leadership, relevance, and social responsibility through emphasis on ten key areas of service. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty. Phone: 936-261-1500; Website: [J. B. Coleman Library](http://www.pravin.gil.com).
Academic Advising Services
Academic Advising Services offers students a variety of services that contributes to student success and leads towards graduation. We assist students with understanding university policies and procedures that affect academic progress. We support the early alert program to help students get connected to success early in the semester. We help refer students to the appropriate academic support services when the student is unsure of the best resource for their needs. Some students are supported by faculty advisors in their respective colleges. Your faculty advisor can be identified in PantherTracks. Advisors with Academic Advising Services are available to all students. We are located across campus. You can find your advisor’s location by academic major at the Academic Advising Website, Phone: 936-261-5911.

The University Tutoring Center
The University Tutoring Center (UTC) offers free tutoring and academic support to all registered PVAMU students. The mission of the UTC is to help provide a solid academic foundation that enables students to become confident, capable, independent learners. Competent and caring staff and peer tutors guide students in identifying, acquiring, and enhancing the knowledge, skills, and attitudes needed to reach their desired goals. Tutoring and academic support is offered face-to-face in the UTC, in virtual face-to-face sessions, and through online sessions at PVPlace. Other support services available for students include Supplemental Instruction, Study Break, Academic Success Workshops, and Algebra Study Jam. Location: J. B. Coleman Library, Rm. 307; Phone: 936-261-1561; Email: pvtutoring@pvamu.edu; Website: University Tutoring Center.

The Writing Center
The Writing Center provides well-trained peer tutors that assist students with writing assignments at any stage of the writing process. Tutors help students with various writing tasks from understanding assignments, brainstorming, drafting, revising, editing, researching, and integrating sources. Students have free access to Grammarly online writing assistance. Grammarly is an automated proofreading and plagiarism detection tool. Student must register for Grammarly by using their student email address. In addition, students have access to face-to-face as well as virtual tutoring services either asynchronously via email or synchronously via Zoom. Location: J. B. Coleman Library, Rm. 209; Phone: 936-261-3724; Website: The Writing Center; Grammarly Registration.

Academic Early Alert
Academic Early Alert is a proactive system of communication and collaboration between faculty, academic advisors, and PVAMU students that is designed to support student success by promptly identifying issues and allowing for intervention. Academic Early Alert helps students by providing a central location to schedule advising appointments, view advisor contact information, and request assistance. Students who recognize that they have a problem that is negatively affecting their academic performance or ability to continue school may self-refer an Academic Early Alert. To do so, students will log in to PVPlace and click on Academic Early Alert on the left sidebar. Phone: 936-261-5902; Website: Academic Early Alert.

Student Counseling Services
The Student Counseling Services unit offers a range of services and programs to assist students in maximizing their potential for success: short-term individual, couples, and group counseling, as well as crisis intervention, outreach, consultation, and referral services. The staff is licensed by the State of Texas and provides assistance to students who are dealing with academic skills concerns, situational crises, adjustment problems, and emotional difficulties. Information shared with the staff is treated confidentially and in accordance with Texas State Law. Location: Hobart Taylor, 2nd floor; Phone: 936-261-3564; Website: Student Counseling Services.

Office of Testing Services
Testing Services serves to create opportunities by offering suite of exams that aid in the students’ academic and professional success. Currently we administer entrance (HESI A2), college readiness (TSI assessment), Prior Learning (CLEP, DSST), and proctored exams. Location: Wilhelmina Delco, 3rd Floor, Rm. 305; Phone: 936-261-3627; Email: aetesting@pvamu.edu; Website: Testing Services.

Office of Diagnostic Testing and Disability Services
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be
guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, contact the Office of Disability Services. As a federally-mandated educational support unit, the Office of Disability Services serves as the repository for confidential disability files for faculty, staff, and students. For persons with a disability, the Office develops individualized ADA letters of request for accommodations. Other services include: learning style inventories, awareness workshops, accessibility pathways, webinars, computer laboratory with adapted hardware and software, adapted furniture, proctoring of non-standardized test administrations, ASL interpreters, ALDs, digital recorders, livescribe, and a comprehensive referral network across campus and the broader community. Location: Hobart Taylor, Rm. 1D128; Phone: 936-261-3583; Website: Disability Services.

Center for Instructional Innovation and Technology Services (CIITS)
Distance Learning, also referred to as Distance Education, is the employment of alternative instructional delivery methods to extend programs and services to persons unable to attend college in the traditional manner. The Center for Instructional Innovation and Technology Services (CIITS) supports student learning through online, hybrid, web-assisted and 2-way video course delivery. For more details and contact information, visit: CIITS Student Webpage; Phone: 936-261-3283.

Veteran Affairs
Veteran Services works with student veterans, current military and military dependents to support their transition to the college environment and continued persistence to graduation. The Office coordinates and certifies benefits for both the G.I. Bill and the Texas Hazlewood Act. Location: Evans Hall, Rm. 102; Phone: 936-261-3563; Website: Veteran Affairs.

Office for Student Engagement
The Office for Student Engagement delivers comprehensive programs and services designed to meet the co-curricular needs of students. The Office implements inclusive and accessible programs and services that enhance student development through exposure to and participation in diverse and relevant social, cultural, intellectual, recreational, community service, leadership development and campus governance. Location: Memorial Student Center, Rm. 221; Phone: 936-261-1340; Website: Office for Student Engagement.

Career Services
Career Services supports students through professional development, career readiness, and placement and employment assistance. The Office provides one-on-one career coaching, interview preparation, resume and letter writing, and career exploration workshops and seminars. Services are provided for students at the Northwest Houston Center and College of Nursing in the Medical Center twice a month or on a requested basis. Distance Learning students are encouraged to visit the Career Services website for information regarding services provided. Location: Anderson Hall, 2nd floor; Phone: 936-261-3570; Website: Career Services.

University Rules and Procedures

Academic Misconduct (See Student Planner)
You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Planner, especially the section on academic misconduct (see University Administrative Guidelines on Academic Integrity). Students who engage in academic misconduct are subject to university disciplinary procedures. As listed in the PVAMU Undergraduate Catalog, Graduate Catalog, and the Student Planner, the following are examples of prohibited conduct. This list is not designed to be all-inclusive or exhaustive. In addition to academic sanctions, any student found to have committed or to have attempted to commit the following academic misconduct may also be subject to disciplinary review and action as outlined in the PVAMU Student Planner.

Forms of Academic Dishonesty:

1. **Cheating:** Deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not learned, giving or receiving aid unauthorized by the instructor on assignments or examinations. Examples: unauthorized use of notes for a test; using a “cheat sheet” on a quiz or exam; any alteration made on a graded test or exam which is then resubmitted to the teacher.
2. **Plagiarism**: Careless or deliberate use of the work or the ideas of another; representation of another’s work, words, ideas, or data as your own without permission or appropriate acknowledgment. Examples: copying another’s paper or answers, failure to identify information or essays from the Internet and submitting or representing it as your own; submitting an assignment which has been partially or wholly done by another and claiming it as yours; not properly acknowledging a source which has been summarized or paraphrased in your work; failure to acknowledge the use of another’s words with quotation marks.

3. **Multiple Submission**: Submission of work from one course to satisfy a requirement in another course without explicit permission. Example: using a paper prepared and graded for credit in one course to fulfill a requirement and receive credit in a different course.

4. **Conspiracy**: Agreeing with one or more persons to commit an act of academic/scholastic dishonesty.

5. **Fabrication of Information/Forgery**: Use or submission of contrived, invented, forged, or altered information in any assignment, laboratory exercise, or test; tampering with or production of a counterfeit document, particularly documents which make up the student’s academic record. Examples: making up a source or citing nonexistent publication or article; representing made up data as real for an experiment in a science laboratory class; forging a change of grade or student withdrawal record; falsifying any document related to a student academic exercise.

**Nonacademic Misconduct (See Student Planner)**

The University respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor’s ability to conduct the class, or (2) the ability of students to benefit from the instructional program, or (3) the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Office for Student Conduct under nonacademic procedures.

**Sexual Misconduct**

Sexual harassment of students and employees at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating the university’s sexual harassment policy will be subject to disciplinary action. In accordance with the Texas A&M University System guidelines, your instructor is obligated to report to the Office of Title IX Compliance (titleixteam@pvamu.edu) any instance of sexual misconduct involving a student, which includes sexual assault, stalking, dating violence, domestic violence, and sexual harassment, about which the instructor becomes aware during this course through writing, discussion, or personal disclosure. The faculty and staff of PVAMU actively strive to provide a learning, working, and living environment that promotes respect that is free from sexual misconduct, discrimination, and all forms of violence. If students, faculty, or staff would like assistance, or have questions, they may contact the Title IX Coordinator at 936-261-2144 or titleixteam@pvamu.edu. More information can be found at the Title IX Webpage including confidential resources available on campus.

**Pregnancy, Pregnancy-related, and Parenting Accommodations**

Title IX of the Education Amendments of 1972 prohibits sex discrimination, which includes discrimination based on pregnancy, marital status, or parental status. Students seeking accommodations related to pregnancy, pregnancy-related condition, or parenting (reasonably immediate postpartum period) are encouraged to contact Student Disability Services or the Dean of Students’ Office for additional information and to request accommodations. More information can be found at this webpage.

**Non-Discrimination Statement**

Prairie View A&M University does not discriminate on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation or gender identity in its programs and activities. The University is committed to supporting students and complying with the Texas A&M University System non-discrimination policy. It seeks to establish an environment that is free of bias, discrimination, and harassment. If you experience an incident of discrimination or harassment, we encourage you to report it. If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are individuals who can meet with you. The Director of Equal Opportunity & Diversity has been designated to handle inquiries regarding the non-discrimination policies, and can be reached at Harrington Science Building, Suite 109 or by phone 936-261-1744 or 1792.

**Class Attendance Policy (See Catalog for Full Attendance Policy)**
Prairie View A&M University requires regular class attendance. Attending all classes supports full academic development of each learner whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or internet. Excessive absenteeism, whether excused or unexcused, may result in a student’s course grade being reduced or in assignment of a grade of “F”. Absences are accumulated beginning with the first day of class during regular semesters and summer terms. Each faculty member will include the University’s attendance policy in each course syllabus.

**Technical Considerations**

**Minimum Recommended Hardware and Software:**
- Intel PC or Laptop with Windows 10 or later version; Mac with OS High Sierra*  
- Smartphone or iPad/Tablet with Wi-Fi*  
- High speed Internet access  
- 8 GB Memory  
- Hard drive with 320 GB storage space  
- 15” monitor, 800x600, color or 16 bit  
- Sound card w/speakers  
- Microphone and recording software  
- Keyboard & mouse  
- Most current version of Google Chrome, Safari or Firefox

*Smartphone, Google Chrome books and Android tablets may not be supported. iPads are the only tablets supported.

**Note:** Be sure to enable Java & pop-ups in the Web browser preferences

**Participants should have a basic proficiency of the following computer skills:**
- Sending and receiving emails  
- A working knowledge of the Internet  
- Microsoft Word (or a program convertible to Word)  
- Acrobat PDF Reader  
- Windows or Mac OS  
- Video conferencing software  
- **Netiquette (online etiquette)**  
- Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated. Do not use ALL CAPS for communicating to others AS IT CAN BE INTERPRETED AS YELLING. Avoid slang terms such as “wassup?” and texting abbreviations such as “u” instead of “you.” Limit and possibly avoid the use of emoticons. Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and the message might be taken seriously or sound offensive.

**Video Conferencing Etiquette**
- When using Zoom, WebEx or other video conferencing tools, confirm the visible area is tidy, clear of background clutter, inappropriate or offensive posters, and other distractions. Ensure you dress appropriately and avoid using high traffic or noisy areas. Stay muted when you are not speaking and avoid eating/drinking during session. Before class begins, test audio, video and lighting to alleviate technology issues.

**Technical Support**
- Students should go to the Password Reset Tool if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Center for Instructional Innovation and Technology Services (CIITS) at 936-261-3283 or email ciits@pvamu.edu.

**Communication Expectations and Standards**
- Emails or discussion postings will receive a response from the instructor, usually in less than 48 hours. Urgent emails
should be marked as such. Check regularly for responses.

• Discussion Requirement
  Online courses often require minimal to no face-to-face meetings. However, conversations about the readings, lectures, materials, and other aspects of the course can take place in a seminar fashion. This will be accomplished by the use of the discussion board. The exact use of discussion will be determined by the instructor.

• It is strongly suggested that students type their discussion postings in a word processing application such as Word and save it to their PC or a removable drive before posting to the discussion board. This is important for two reasons: 1) If for some reason your discussion responses are lost in your online course, you will have another copy; 2) Grammatical errors can be greatly minimized by the use of the spell-and-grammar check functions in word processing applications. Once the post(s) have been typed and corrected in the word processing application, copy and paste to the discussion board.

COVID-19 Campus Safety Measures

To promote public safety and protect students, faculty, and staff during the COVID-19 pandemic, Prairie View A&M University has adopted policies and practices for the Fall 2020 academic term to limit virus transmission. Students must observe the following practices while participating in face-to-face courses and course-related activities (office hours, help sessions, transitioning to and between classes, study spaces, academic services, etc.):

• Self-monitoring - Students should follow CDC recommendations for self-monitoring. Students who have a fever or exhibit symptoms of COVID-19 should participate in class remotely and should not participate in face-to-face instruction.

• Face Coverings - Face coverings (cloth face covering, surgical mask, etc.) must be properly worn in all non-private spaces including classrooms, teaching laboratories, common spaces such as lobbies and hallways, public study spaces, libraries, academic resource and support offices, and outdoor spaces where 6 feet of physical distancing is difficult to reliably maintain.

• Physical Distancing - Physical distancing must be maintained between students, instructors, and others in course and course-related activities.

• Classroom Ingress/Egress - Students must follow marked pathways for entering and exiting classrooms and other teaching spaces. Students should leave classrooms promptly after course activities have concluded, should not congregate in hallways and should maintain 6-foot physical distancing when waiting to enter classrooms and other instructional spaces.

• Face-to-face Class - To attend a face-to-face class, students must wear a face covering (or a face shield if they have an exemption letter). If a student refuses to wear a face covering, the instructor should ask the student to leave and join the class remotely. If the student does not leave the class, the faculty member should report that student to the Office for Student Conduct for adjudication. Additionally, the faculty member may choose to teach that day’s class remotely for all students.

COVID-19 Guidelines for Student Conduct Adjudication - The mandatory COVID-19 Training/Certification taken by all students serves as the 1st Warning for violation of COVID-19 Guidelines.

  o 1st incident: upon review of Incident Report and finding of responsibility — Conduct Probation
  o 2nd incident: upon review of Incident Report and finding of responsibility — Suspension

  Consult the Code of Student Conduct in the Student Planner or Student Conduct website for additional information on Conduct Probation and Suspension.
• **Personal Illness and Quarantine** - Students required to quarantine must participate in courses and course-related activities remotely and must not attend face-to-face course activities. Students should notify their instructors of the quarantine requirement. Students under quarantine are expected to participate in courses and complete graded work unless they have symptoms that are too severe to participate in course activities. Students experiencing personal injury or illness that is too severe for the student to attend class qualify for an excused absence. To receive an excused absence, students must provide appropriate documentation to the Office for Student Conduct, studentconduct@pvamu.edu.
## TENTATIVE SEMESTER CALENDAR
(This schedule is subject to change at the discretion of the instructor)

<table>
<thead>
<tr>
<th>Week</th>
<th>TOPIC</th>
<th>BUILDING A FIRM FOUNDATION</th>
<th>SKILL BUILDERS</th>
<th>JOURNAL ARTICLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>One 1/19</td>
<td>Introduction to the Course</td>
<td>Differential Gene Expression</td>
<td>Classical Experimental Embryology: Students will be introduced to the experimental techniques used in embryology. These techniques include fate mapping and elucidation of gene expression patterns. These techniques will be seen throughout the semester in conjunction with basic biomedical lab techniques.</td>
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<tr>
<td>Two 1/26</td>
<td>Cell Signaling</td>
<td>Key Signaling Pathways for Embryogenesis</td>
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<tr>
<td>Three 2/2</td>
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<tr>
<td>Four 2/9</td>
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<td>Five 2/16</td>
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<tr>
<td>Six 2/23</td>
<td>Development of Organisms Part I</td>
<td>From Zygote to Embryo</td>
<td>TBA</td>
<td></td>
</tr>
<tr>
<td>Seven 3/2</td>
<td>Development of Organisms Part II</td>
<td>Organogenesis</td>
<td>How to Answer Open-Ended Questions</td>
<td>Scoring Rubric for Open Response Questions</td>
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<tr>
<td>Week Ten 3/23</td>
<td>Uncontrolled Proliferation</td>
<td>Sonic hedgehog Signaling in the Developing Brain and Brain Tumors</td>
<td>Developing a Scientific Explanation</td>
<td>“Medulloblastoma growth inhibition by hedgehog pathway blockade”</td>
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<tr>
<td>Week Eleven 3/24</td>
<td>To Live or to Die</td>
<td>The General Principles of Apoptosis</td>
<td>TBA</td>
<td>“Genetic control of programmed cell death in the nematode C. elegans”</td>
</tr>
<tr>
<td>Week Twelve 4/6</td>
<td>Dodging Death</td>
<td>NF-Kappa B Inhibits Apoptosis in Cancer Cells</td>
<td>Cancer Immunotherapy: An mRNA vaccine for cancer</td>
<td>“Deletion of NEMO/IKKgamma in liver parenchymal cells causes steatohepatitis and hepatocellular carcinoma”</td>
</tr>
<tr>
<td>Week Thirteen 4/13</td>
<td>Metastasis Part I</td>
<td>The Lethal Spread of Cancer</td>
<td>TBA</td>
<td>“Twist, a master regulator of morphogenesis, plays an essential role in tumor metastasis”</td>
</tr>
<tr>
<td>Week Fourteen 4/20</td>
<td>Metastasis Part II</td>
<td>TGF-Beta Promotes Epithelial-Mesenchymal Transition in Tumors</td>
<td>TBA</td>
<td>“TGFbeta1 inhibits the formation of benign skin tumors, but enhances progression to invasive spindle carcinomas in transgenic mice”</td>
</tr>
<tr>
<td>Week Fifteen 4/27</td>
<td>Noncoding RNAs and Cancer</td>
<td>The role of miRNA in B-cell lymphomas</td>
<td>TBA</td>
<td>“A microRNA polycistron as a potential human oncogene”</td>
</tr>
</tbody>
</table>

**Research Project Oral Presentation Practice**

| Week Sixteen 5/4 | Metastasis Part I                  | The Lethal Spread of Cancer                   | TBA                     | “Twist, a master regulator of morphogenesis, plays an essential role in tumor metastasis” |
| Week Sixteen 5/10 | Noncoding RNAs and Cancer            | The role of miRNA in B-cell lymphomas         | TBA                     | “A microRNA polycistron as a potential human oncogene” |